

Problem 2 Let L be the language defined by the regular expression:

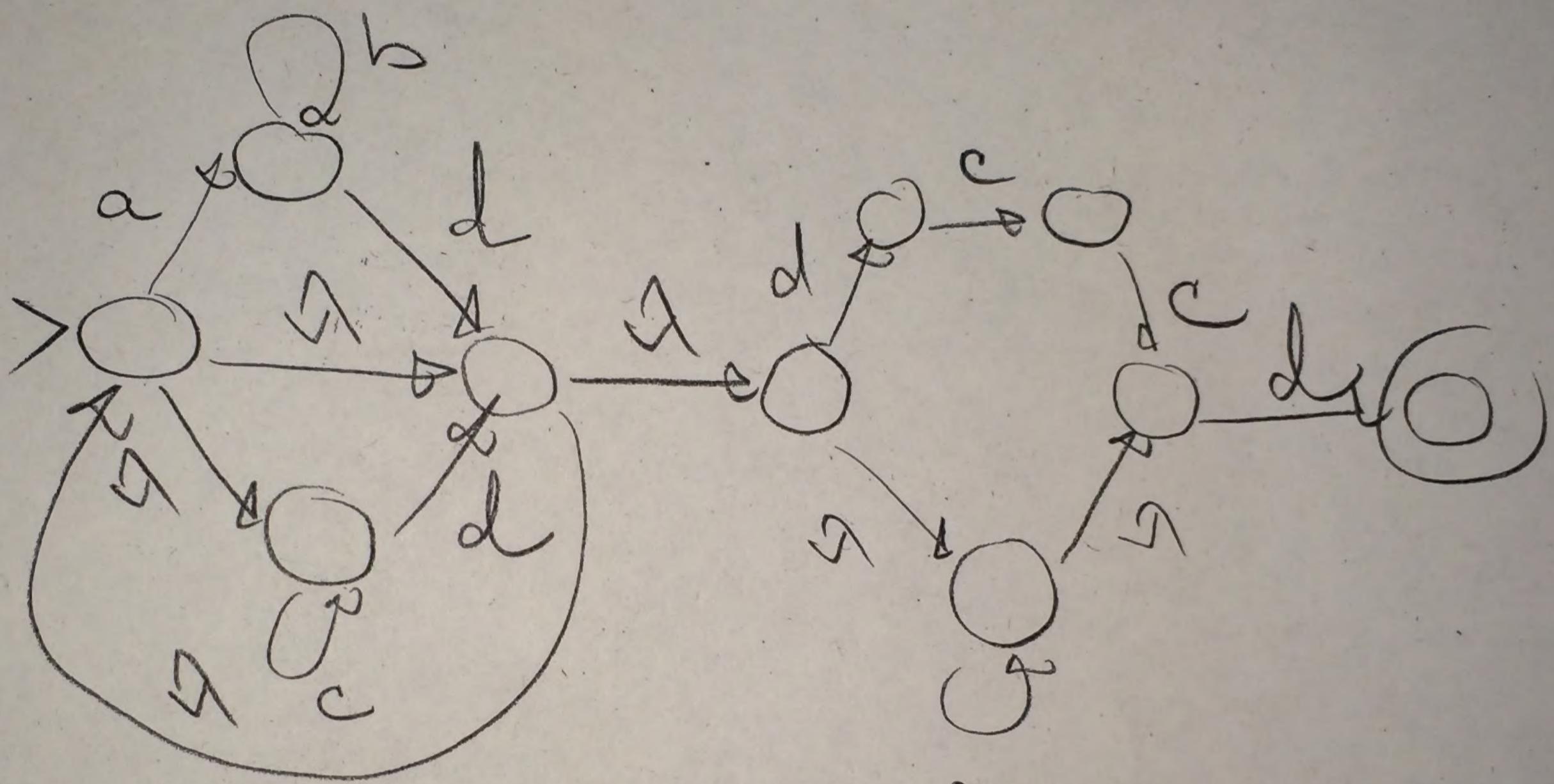
LAST NAME:

FIRST NAME:

$$(a\ b^*d \cup c^*d)^* (dcc \cup a^*)\ d$$

(a) Draw a state-transition graph of a finite automaton that accepts the language L . If such an automaton does not exist, state it and explain why

Answer:



(b) Write a complete formal definition of a context-free grammar that generates the language L . If such a grammar does not exist, state it and explain why.

Answer:

Answer:
 $G = (V, \mathcal{E}, P, S)$
 $\mathcal{E} = \{a, b, c, d\}$
 $V = \{S, A, B, C, D, E\}$

ain why.
P. S → EDd

E + 2 | EE | aBd | Kd

$$3 \leftarrow 5B / 2$$

Keklia

Dedicated

Realtor